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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/605,789	06/27/2000	Yasuhiro Tanaka	36856.863	4068

7590 01/08/2003  
Keating & Bennett, LLP  
10400 Eaton Place  
Suite 312  
Fairfax, VA 22030

EXAMINER

BETTENDORF, JUSTIN P

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/605,789	TANAKA, YASUHIRO	
	Examiner	Art Unit	
	Justin P. Bettendorf	2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 16-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>17</u> . | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/21/02 has been entered.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-4 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marusawa et al. (United States Patent No. 5,498,999 of record) in view of Krishnamurthy et al. (of record).

The Marusawa et al. reference discloses in figure 4 a laminated nonreciprocal circuit device comprising a laminated substrate including magnetic materials 21-26, which are also considered dielectric material, with a plurality of central conductors 29-31, and a capacitor “network” formed by electrodes 36-38 and ground electrode 39 formed on the lower surface of the body at layer 26 (col. 7, lines 50-65). The reference further discloses that a permanent magnet and metal yokes are added but does not show them laminated to the device.

The Krishnamurthy et al. reference discloses an integrated non-reciprocal device in figure 4 with an integrated yoke comprising magnetic thin films 214 and 239 (see col. 8, lines 58-65)

and magnet 216. The reference also suggests that the magnetic thin films should be deposited over the entire outer surface (which includes the top, bottom, and sides - see col. 6, lines 32-37 and col. 9, lines 47-52). The design of the integrated yoke and permanent magnet advantageously allows insertion into a high density structure (abstract).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have integrated the yoke (over the entire surface) and permanent magnet in the non-reciprocal device of Marusawa et al. as taught by Krishnamurthy et al. because such a modification would have advantageously allowed insertion into a high density interconnect structure.

#### *Response to Arguments*

4. Applicant's arguments filed 10/21/02 have been fully considered but they are not persuasive.

The applicant argues that Krishnamurthy et al. does not teach placing the integrated yoke on the side surfaces.

This argument is not persuasive. First of all, figure 4 of Krishnamurthy et al. is a cross-sectional view that shows only two dimensions; nevertheless, yoke layer 239 is shown as being on the side surfaces of magnet 216. Additionally, the reference teaches that film 239 is identical in purpose to layer 34 (col. 9, lines 48-51), which is disclosed as being deposited over the entire outer surface of the structure (col. 6, lines 33-40). Accordingly, Krishnamurthy et al. does teach placing the yoke on all of the surfaces of the device (i.e., top, bottom, and side surfaces).

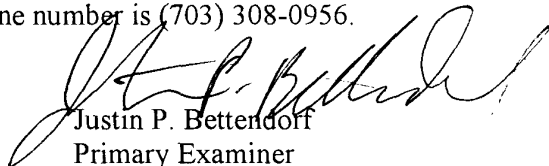
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*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin P. Bettendorf whose telephone number is (703) 308-2780. The examiner can normally be reached on 6:00-3:30 (M-F, 1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on (703) 308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
Justin P. Bettendorf  
Primary Examiner  
Art Unit 2817

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January 7, 2003